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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/762,741

02/12/2001

Ludwig Hofmann

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EXAMINER

D AGOSTA, STEPHEN M

ART UNIT

PAPER NUMBER

2683

DATE MAILED: 03/16/2004

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/762,741

Applicant(s)

HOFMANN, LUDWIG

Examiner

Stephen M. D'Agosta

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 4-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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DETAILED ACTION

Preliminary Amendment

The preliminary amendment has been received and placed in the file of record.

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d).

Drawings

The drawings were received on 2-12-01 and have been reviewed by the draftsman and examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tayloe et al. US 5,826,188 and further in view of Schloemer US 4,736,453 (hereafter Tayloe and Schloemer).

The examiner notes cancellation of claims 1-3 and new claims 4-6.

As per **claim 4**, Tayloe teaches a mobile telecommunication device (figure 2, #202), comprising:

A facility for transmitting messages to a plurality of subscriber stations via one of a plurality of radio frequencies and different transmission methods (title teaches "handing off between differing radio networks", figure 1 shows satellite and terrestrial

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communications #102/#112, figure 3 shows checking for other available networks, #318 and inter-network handoff #320, figure 8 shows the mobile unit with multiple RF interfaces #806-#810, C2, L65 to C3, L10 and C3, L55 to C4, L12); and

A facility for evaluating position of the mobile device/satellite for selecting and changing the radio frequencies and transmission methods (figure 3, #306-#316, figure 4 teaches use of location data #402-#410, C4, L1-12 teaches position determination of mobile unit)

But is silent on evaluating at least one control signal.

The examiner states that while the applicant fails to define/limit the term "control signal" (which is very broad and is typically used in cellular communication systems) he does note that Tayloe focuses more on network "messaging" for location/hand-off (C12, L9-11) rather than using/evaluating control signals (eg. such as CCH, BCCH, etc.).

Schloemer teaches a method for making frequency channel assignments in a cellular system (title) that specifically "evaluates control channels" (abstract) in order to make channel assignment/handoff decisions (C3, L38-55 - In order to determine whether or not a mobile radio telephone leaves the location of one base site and enters another, the signal strength of the mobile radio telephone is monitored by the base site controller. When the signal strength of a mobile radio telephone becomes too weak the receiving antenna may be changed or the strength of a transmitted signal being increased by a control signal transmitted from a base by controller. As the mobile radio telephones may be handed off to a base site controller in another base site. Handing off involves transferring the particular mobile radio telephone from a duplex voice channel in one base site to a duplex voice channel in another base site.)

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Tayloe, such that control signals are evaluated, to provide means for both position and control channels to be evaluated as taught by Schloemer when making a handoff decision thus yielding multiple data points upon which to make said decision.

As per **claim 5**, Tayloe in view of Schloemer teaches claim 4 wherein the facility for transmitting messages includes one of a plurality of radio facilities (C1, L24 to 30 and C2, L65 to C3, L10) and a plurality of controllers (inherent to cellular systems, eg. BSC – Tayloe teaches both cellular and satellite system gateways, figure 2, #230 and #210 which read on controllers) and wherein the mobile device further comprises means for connecting and disconnecting the plurality of radio facilities and the plurality of controllers depending on at least one control signal (figure 8 teaches the mobile unit with a processor, #802 that controls which RF interface #806-810 is connected or disconnected, C12, L6-28).

Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Tayloe in view of Schloemer and further in view of Light et al. US 6,061,337 (hereafter Light).

As per **claim 6**, Tayloe in view of Schloemer teaches claim 4 further comprising:
Means for determining the position of the mobile device (figure 3, #306 to #316 teaches location determination of mobile) and

Means for generating a message depending on the position of the mobile device (#316 teaches reception position data regarding the mobile)

But is silent on a control signal is generated depending upon mobile position.

The examiner notes that Tayloe teaches use of messages while the applicant teaches use of control signals (eg. pilot/beacon, spec. page3, L16-20).

Light teaches a handoff whereby the mobile unit measures pilot signals and returns said measurements (eg. a control signal/message) to the network to decide if a handoff is warranted.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify the combination of Tayloe and Schloemer, such that a control signal/message is returned to the network, to provide an alert to the network about how the mobile is receiving the pilot which will indicate when a handoff is required.

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Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

1. Voce et al. US 6,389,289 teaches regional satellite service.
2. Ghazvinian et al. US 5,936,570 teaches LEO acquisition and synchronization
3. Sherman et al. US6,021,309 teaches channel frequency allocation
4. Jan et al. US 5,367,304 teaches spectral reuse on spherical surface
5. Wiedeman et al. US 6,023,463 teaches satellite interference avoidance.
6. Sehloemer US 5,566,354 teaches channel assignment in satellite system.
7. Duran et al. US 6,115,608 teaches intersystem handoff
8. Haberman et al. US 6,035,197 teaches CDMA to analog handoff.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 703-306-5426. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

SMD
3-10-04

